Release notes for ENDF/B Development n-055_Cs_137 evaluation

April 26, 2017

- **checkr** Warnings:

  1. A previous error halted parsing of the current section
     MAT=5537, MF= 1, MT=451 (1): Parsing stopped

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 1, MT=451
        SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER     231 TO     277
     ```

- **checkr** Errors:

  1. A variable is outside the allowed ENDF range
     MAT=5537, MF= 1, MT=451 (0): Variable range

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 1, MT=451
        MOD =     1 OUT OF RANGE     0 -     0          RECORD NUMBER     231
     ```

  2. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 2, MT=151 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 2, MT=151
        SECTION  2/151 NOT IN DIRECTORY              RECORD NUMBER     279
     ```

  3. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 3, MT= 1 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 3, MT=  1
        SECTION  3/  1 NOT IN DIRECTORY              RECORD NUMBER     528
     ```

  4. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 3, MT= 2 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 3, MT=  2
        SECTION  3/  2 NOT IN DIRECTORY              RECORD NUMBER     586
     ```

  5. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 3, MT= 4 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 3, MT=  4
        SECTION  3/  4 NOT IN DIRECTORY              RECORD NUMBER     641
     ```

  6. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 3, MT= 16 (0): Directory (b)

     ```
     ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 16
        SECTION  3/ 16 NOT IN DIRECTORY              RECORD NUMBER     656
     ```

  7. Missing a section in directory so your directory is messed up. This error will break everything else
     MAT=5537, MF= 3, MT= 17 (0): Directory (b)

1

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 17
            SECTION  3/ 17 NOT IN DIRECTORY            RECORD NUMBER     667
```

8. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5537, MF= 3, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 22
            SECTION  3/ 22 NOT IN DIRECTORY            RECORD NUMBER     673
```

9. Missing a section in directory so your directory is messed up. This error will break everything else
   MAT=5537, MF= 3, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 28
            SECTION  3/ 28 NOT IN DIRECTORY            RECORD NUMBER     687
```

10. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 32 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 32
            SECTION  3/ 32 NOT IN DIRECTORY            RECORD NUMBER     698
```

11. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 33 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 33
            SECTION  3/ 33 NOT IN DIRECTORY            RECORD NUMBER     706
```

12. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 51 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 51
            SECTION  3/ 51 NOT IN DIRECTORY            RECORD NUMBER     714
```

13. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 52 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 52
            SECTION  3/ 52 NOT IN DIRECTORY            RECORD NUMBER     729
```

14. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 53 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 53
            SECTION  3/ 53 NOT IN DIRECTORY            RECORD NUMBER     742
```

15. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 54 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 54
           SECTION  3/ 54 NOT IN DIRECTORY                 RECORD NUMBER     755
```

16. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 55 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 55
           SECTION  3/ 55 NOT IN DIRECTORY                 RECORD NUMBER     766
```

17. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 56 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 56
           SECTION  3/ 56 NOT IN DIRECTORY                 RECORD NUMBER     777
```

18. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 57 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 57
           SECTION  3/ 57 NOT IN DIRECTORY                 RECORD NUMBER     787
```

19. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT= 91
           SECTION  3/ 91 NOT IN DIRECTORY                 RECORD NUMBER     797
```

20. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT=102 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT=102
           SECTION  3/102 NOT IN DIRECTORY                 RECORD NUMBER     806
```

21. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT=103 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT=103
           SECTION  3/103 NOT IN DIRECTORY                 RECORD NUMBER     828
```

22. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT=104 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 3, MT=104
           SECTION  3/104 NOT IN DIRECTORY                 RECORD NUMBER     842
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT=105 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 3, MT=105
            SECTION   3/105 NOT IN DIRECTORY                  RECORD NUMBER     855
```

24. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 3, MT=107 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 3, MT=107
            SECTION   3/107 NOT IN DIRECTORY                  RECORD NUMBER     867
```

25. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 2 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT=  2
            SECTION   4/  2 NOT IN DIRECTORY                  RECORD NUMBER     884
```

26. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 16 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 16
            SECTION   4/ 16 NOT IN DIRECTORY                  RECORD NUMBER    1050
```

27. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 17 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 17
            SECTION   4/ 17 NOT IN DIRECTORY                  RECORD NUMBER    1061
```

28. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 22 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 22
            SECTION   4/ 22 NOT IN DIRECTORY                  RECORD NUMBER    1072
```

29. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 28 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 28
            SECTION   4/ 28 NOT IN DIRECTORY                  RECORD NUMBER    1083
```

30. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 32 (0): Directory (b)

```
         ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 32
            SECTION   4/ 32 NOT IN DIRECTORY                  RECORD NUMBER    1094
```

31. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 33 (0): Directory (b)

4

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 33
         SECTION  4/ 33 NOT IN DIRECTORY               RECORD NUMBER    1105
```

32. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 51 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 51
         SECTION  4/ 51 NOT IN DIRECTORY               RECORD NUMBER    1116
```

33. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 52 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 52
         SECTION  4/ 52 NOT IN DIRECTORY               RECORD NUMBER    1144
```

34. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 53 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 53
         SECTION  4/ 53 NOT IN DIRECTORY               RECORD NUMBER    1171
```

35. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 54 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 54
         SECTION  4/ 54 NOT IN DIRECTORY               RECORD NUMBER    1198
```

36. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 55 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 55
         SECTION  4/ 55 NOT IN DIRECTORY               RECORD NUMBER    1222
```

37. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 56 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 56
         SECTION  4/ 56 NOT IN DIRECTORY               RECORD NUMBER    1246
```

38. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 57 (0): Directory (b)

```
      ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 57
         SECTION  4/ 57 NOT IN DIRECTORY               RECORD NUMBER    1270
```

39. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 4, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 4, MT= 91
             SECTION  4/ 91 NOT IN DIRECTORY                  RECORD NUMBER    1294
```

40. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 16 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 16
             SECTION  5/ 16 NOT IN DIRECTORY                  RECORD NUMBER    1319
```

41. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 17 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 17
             SECTION  5/ 17 NOT IN DIRECTORY                  RECORD NUMBER    1376
```

42. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 22 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 22
             SECTION  5/ 22 NOT IN DIRECTORY                  RECORD NUMBER    1407
```

43. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 28 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 28
             SECTION  5/ 28 NOT IN DIRECTORY                  RECORD NUMBER    1602
```

44. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 32 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 32
             SECTION  5/ 32 NOT IN DIRECTORY                  RECORD NUMBER    1723
```

45. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 33 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 33
             SECTION  5/ 33 NOT IN DIRECTORY                  RECORD NUMBER    1766
```

46. Missing a section in directory so your directory is messed up. This error will break everything else
    MAT=5537, MF= 5, MT= 91 (0): Directory (b)

```
        ERROR(S) FOUND IN MAT=5537, MF= 5, MT= 91
             SECTION  5/ 91 NOT IN DIRECTORY                  RECORD NUMBER    1806
```

- `psyche` Warnings:

1. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.80002E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                        STRENGTH FUNCTION 1.80002E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [1 more lines]
```

2. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.80001E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                        STRENGTH FUNCTION 1.80001E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [1 more lines]
```

3. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.79999E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                        STRENGTH FUNCTION 1.79999E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

4. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.79997E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                        STRENGTH FUNCTION 1.79997E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

5. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.80004E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
       ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                        STRENGTH FUNCTION 1.80004E-04
```

```
                                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
   ... [1 more lines]
```

6. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.80003E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
   FILE  2
      SECTION 151
           ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                          STRENGTH FUNCTION 1.80003E-04
                                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
   ... [1 more lines]
```

7. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.80000E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
   FILE  2
      SECTION 151
           ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                          STRENGTH FUNCTION 1.80000E-04
                                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
   ... [2 more lines]
```

8. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.79996E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
   FILE  2
      SECTION 151
           ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                          STRENGTH FUNCTION 1.79996E-04
                                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

9. Strength function in URR not in agreement with PSYCHE's expectations
   FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.80002E-04 / STRENGTH FUNCTION 1.79998E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
   FILE  2
      SECTION 151
           ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.80002E-04
                          STRENGTH FUNCTION 1.79998E-04
                                  LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
   ... [3 more lines]
```

10. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.79999E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

8

```
FILE  2
   SECTION 151
         ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                         STRENGTH FUNCTION 1.79999E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [1 more lines]
```

11. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.80005E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                         STRENGTH FUNCTION 1.80005E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

12. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.79998E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                         STRENGTH FUNCTION 1.79998E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

13. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.80003E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                         STRENGTH FUNCTION 1.80003E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [3 more lines]
```

14. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.80001E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
FILE  2
   SECTION 151
         ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                         STRENGTH FUNCTION 1.80001E-04
                                       LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
... [2 more lines]
```

15. Strength function in URR not in agreement with PSYCHE's expectations
    FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.79997E-04 / LIES OUTSIDE LIMITS

```
            1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.


       FILE  2
          SECTION 151
               ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                          STRENGTH FUNCTION 1.79997E-04
                                          LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

16. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.80000E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
       FILE  2
          SECTION 151
               ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                          STRENGTH FUNCTION 1.80000E-04
                                          LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

17. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.80002E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
       FILE  2
          SECTION 151
               ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                          STRENGTH FUNCTION 1.80002E-04
                                          LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
       ... [2 more lines]
```

18. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.79995E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
       FILE  2
          SECTION 151
               ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                          STRENGTH FUNCTION 1.79995E-04
                                          LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

19. Strength function in URR not in agreement with PSYCHE's expectations
FILE 2 / SECTION 151 / ENERGY = 1.70000E+03. STRENGTH FUNCTION IS 1.79999E-04 / STRENGTH FUNCTION 1.79996E-04 / LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04 (0): URR str. ftn.

```
       FILE  2
          SECTION 151
               ENERGY =  1.70000E+03. STRENGTH FUNCTION IS  1.79999E-04
                          STRENGTH FUNCTION 1.79996E-04
                                          LIES OUTSIDE LIMITS 1.00000E-05 TO 1.00000E-04
```

20. Non-threshold reaction with Q value differing from PSYCHE's expectations
FILE 3 / SECTION 102 / THE CALCULATED Q 4.60267E+06 DISSAGREES WITH THE GIVEN Q 4.28139E+06 (0): Iffy Q

```
FILE  3
   SECTION 102
              THE CALCULATED Q  4.60267E+06 DISSAGREES WITH THE GIVEN Q  4.28139E+06
```

21. Non-threshold reaction with Q value differing from PSYCHE's expectations
    FILE 3 / SECTION 107 / THE CALCULATED Q 3.26454E+06 DISSAGREES WITH THE GIVEN Q 3.06421E+06 (0): Iffy Q

```
FILE  3
   SECTION 107
              THE CALCULATED Q  3.26454E+06 DISSAGREES WITH THE GIVEN Q  3.06421E+06
```

- `fudge-4.0` Warnings:

  1. Cross section does not match sum of linked reaction cross sections
     crossSectionSum label 0: total (Error # 0): CS Sum.

     ```
     WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.91%
     ```

- `fudge-4.0` Errors:

  1. Calculated and tabulated Q values disagree.
     reaction label 10: n[multiplicity:'3'] + Cs135 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -15098737.14031982 eV vs -1.50472e7 eV!
     ```

  2. Calculated and tabulated Q values disagree.
     reaction label 11: n + H1 + Xe136 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -7401789.338684082 eV vs -7428640. eV!
     ```

  3. Calculated and tabulated Q values disagree.
     reaction label 12: n + H2 + Xe135 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -13256645.59692383 eV vs -1.31136e7 eV!
     ```

  4. Calculated and tabulated Q values disagree.
     reaction label 13: n + H3 + Xe134 (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -13363272.62133789 eV vs -1.33856e7 eV!
     ```

  5. Calculated and tabulated Q values disagree.
     reaction label 14: Cs138 + gamma (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: 4420768.325469971 eV vs 4281390. eV!
     ```

  6. Calculated and tabulated Q values disagree.
     reaction label 16: H1 + Xe137_s (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -3376258.879837036 eV vs -3562520. eV!
     ```

  7. Calculated and tabulated Q values disagree.
     reaction label 17: H2 + Xe136_s (Error # 0): Q mismatch

     ```
     WARNING: Calculated and tabulated Q-values disagree: -5177223.237747192 eV vs -5118520. eV!
     ```

8. Calculated and tabulated Q values disagree.
   reaction label 18: H3 + Xe135_s (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: -6999412.656311035 eV vs -6928460. eV!
   ```

9. Calculated and tabulated Q values disagree.
   reaction label 19: He4 + I134_s (Error # 0): Q mismatch

   ```
   WARNING: Calculated and tabulated Q-values disagree: 3180935.636779785 eV vs 3064210. eV!
   ```

- njoy2012   Warnings:

  1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
     groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

     ```
      ---message from conver---cannot do complete particle production for mt= 16
                               only mf4/mf5 provided
     ```

  2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
     groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

     ```
      ---message from conver---cannot do complete particle production for mt= 17
                               only mf4/mf5 provided
     ```

  3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
     groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

     ```
      ---message from conver---cannot do complete particle production for mt= 22
                               only mf4/mf5 provided
     ```

  4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
     groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

     ```
      ---message from conver---cannot do complete particle production for mt= 28
                               only mf4/mf5 provided
     ```

  5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
     groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

     ```
      ---message from conver---cannot do complete particle production for mt= 32
                               only mf4/mf5 provided
     ```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

```
 ---message from conver---cannot do complete particle production for mt= 33
                         only mf4/mf5 provided
```

7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
groupr...compute self-shielded group-averaged cross-sections (6): GROUPR/conver (0)

```
 ---message from conver---cannot do complete particle production for mt= 91
                         only mf4/mf5 provided
```